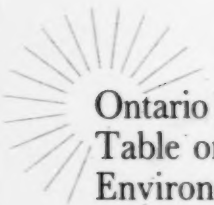
Sectoral Task Force Report

FORESTRY



Ontario Round Table on Environment and Economy

Table ronde de l'Ontario sur l'environnement et l'économie

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© Queen's Printer for Ontario 1992
ISBN 0-7729-9392-0
4,000 3/92

Ontario Round Table on Environment and Economy

Table ronde de l'Ontario sur l'environnement et l'économie

March 23, 1992

The Honourable Ruth Grier
Chair
Ontario Round Table on
Environment and Economy
790 Bay Street, Suite 1003
Toronto, Ontario
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Dear Minister:

The Forestry Sectoral Task Force which the Round Table established in 1991 is pleased to submit its report outlining ways that government, non-government organizations, and private industry can promote sustainability in the forestry sector.

During the preparation of this document, we consulted with key stakeholders and invited written comments on a completed draft report. The input we received was valuable in focussing on the key issues for achieving a healthy environment and strong economic development in the sector.

The members of the Task Force appreciate having had the opportunity to contribute to the important work of the Round Table.

Respectfully submitted,

John Naysmith, Chair

David Balsillie

Ted Boswell

Robert Cormier

Brennain Lloyd

Terry Quinney

Michelle Swenarchuk

W. M. Vrooman

Jerry Woods

TABLE OF CONTENTS

Page

Preface i

Note to the Reader ii

I. Introduction and Background 1

II. Sustainability Vision 2

III. Sector Overview 3

IV. Changes in Place and Under Way 4

V. Directions for Change

Aboriginal Issues in Forestry 6
Biological Diversity, Including Wildlife 6
Decision-Making and Institutional Issues 8
Economics in the Forest Industry Sector - An Overview 8
Economics of Non-Timber Forest Values 13
Forest Audit 13
Global Climate Change 15
Harvesting Methods 16
Inventories and Data Base 17
Pest Management 19
Private Land Forests 19
Professional Education 20
Protected Areas 21
Protecting Forest Sector Employment and Sustainability of Harvest Levels 22
Public Information and Education 23
Pulp and Paper Industrial Effluent 24
Research 26
Solid Waste Management 27
Tenure 28
Worker Protection and Involvement. 31

Appendix I Invited Speakers 32

Appendix II Aboriginal Issues in Forestry 33

PREFACE

This report is one in a series prepared for the Ontario Round Table on Environment and Economy. The Round Table was established in 1988 by the Government of Ontario to create a provincial strategy for sustainable development--development that combines a healthy environment with a healthy economy. The Honourable Ruth Grier, Minister of the Environment, is its Chair.

To assist in the creation of its sustainable development strategy, the Round Table established six task forces responsible for the Agriculture and Food, Energy and Minerals, Forestry, Manufacturing, Transportation, and Urban Development and Commerce sectors. It also set up a Native People's Circle to provide the Aboriginal perspective on sustainable development.

The sectoral task forces and the Native Circle were charged with reporting to the Round Table on how best to begin to achieve sustainability within the context of the six principles set out by the Round Table in its **Challenge Paper**. These are:

- anticipation and prevention of environmental problems;
- the use of full cost accounting;
- informed decision-making which reflects environmental impacts and long term goals;
- living off the interest and reserving our "natural capital";
- quality over quantity; and
- respect for nature and the rights of future generations.

March 1992

To the Reader:

The Forestry Sectoral Task Force was set up to document the state of the forestry sector and to make recommendations on implementing a sustainable development strategy to the Ontario Round Table on Environment and Economy. The members of the Task Force are:

Chair: **John Naysmith**, Director, School of Forestry, Lakehead University
David Balsillie, Assistant Deputy Minister, Policy, Ministry of Natural Resources
Ted Boswell, President, E.B. Eddy Forest Products
Robert Cormier, Native Entrepreneur
Brennain Lloyd, Northwatch
Terry Quinney, Ontario Federation of Anglers and Hunters
Michelle Swenarchuk, Canadian Environmental Law Association
Wally Vrooman, Vice-President, Environmental Affairs, Canadian Pacific Forest Products
Jerry Woods, Canadian Paperworkers Union

In this report, the members of the Task Force present their views on ways that government, non-government organizations, and private industry can best promote a healthy environment and economic development in the forestry sector. This report has been sent to all members of the Ontario Round Table on Environment and Economy. The Round Table is aware of the issues and recommendations it brings forward, and is currently preparing its own strategy document for the Province of Ontario.

Each task force was asked to consult with key stakeholders in documenting the state of the sector and developing its recommendations. To this end, the Forestry Sector Task Force consulted with stakeholders during the preparation of the draft version of this report and invited written comments on the completed draft. These comments are available to the public through the Ontario Round Table.

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I. INTRODUCTION AND BACKGROUND

In applying to the forest sector the six principles of sustainable development contained in its **Challenge Paper**, the Ontario Round Table on the Environment and Economy identified a number of actions, referred to as 'directions for change' (see below), that it considered necessary to make Ontario's forests sustainable. The mandate of the Forest Sector Task Force was to prepare a report to the Round Table that built on the recommendations of the **Challenge Paper** and identified strategic issues, priority actions and policies for implementing sustainable development in the forest sector.

In carrying out their mandate, the Task Force members benefitted greatly from readily accessible current information, data and views generated by other initiatives such as the ongoing Class Environmental Assessment for Timber Management on Crown Lands in Ontario. The work of the Task Force was further strengthened by the diversity of its membership and the wide ranging views and perspectives it brought to each issue. Underlying its diversity, however, was a fundamental premise -- that the forest comprises an array of ecological, social, cultural and economic values, all of which must be taken into account in creating a sustainable development strategy for Ontario's forests.

The Task Force identified 20 subject areas, ranging from aboriginal issues to research, and biological diversity to industrial effluent. In addressing these issues, the Task Force met 18 times, reviewed relevant reference material, debated background papers prepared by members, and heard presentations from invited speakers (see Appendix I). In addition, meetings were held with local Round Tables in Hearst, Guelph and Huntsville and the Northwestern Ontario Development Network at its annual meeting in Thunder Bay.

The essence of the Forest Sector Task Force report, including some 50 recommendations and the views of its members, is summed up in the following Sustainability Vision.

II. SUSTAINABILITY VISION

Being Canadians, we members of the Forest Sector Task Force share the feelings of awe and affection inspired by our forests in most citizens.

We also recognize how significantly we all benefit from the commercial value of Ontario forests.

We recognize that many words have been spoken and written about the need to protect and conserve our forests. Now concrete actions are required.

Our set of "modest proposals" represents a consensus reached among individuals of widely divergent views who have examined forest management holistically. We consider the forest's place in provincial ecosystems that include soil, vegetative and animal life, air and water. The relationship of human communities to these ecosystems has been reviewed.

Our focus has been to respond to public concerns about visible and contentious environmental impacts of current forest use and to identify actions necessary to ensure renewability (sustainability) of this renewable resource.

It is our sincere wish that actions follow rapidly after these words.

III. SECTOR OVERVIEW

The forest sector is critical to both the environment and the economy of Ontario and is therefore of considerable importance to the provincial Round Table.

Forest covers three-quarters of the province--some 80 million hectares. The total volume of wood (growing stock) in Ontario is estimated to be 5.1 billion cubic metres. The forests of Ontario also provide shelter to 2900 species of vascular plants, 160 species of fish, 70 species of reptiles and amphibians, 400 species of birds and about 85 species of mammals. Significant environmental issues in the forest sector include: the protection of biodiversity and certain genetic strengths; the preservation of wildlife habitat; the preservation of the forest as a major carbon sink and a source of oxygen through photosynthesis; and the long-term preservation of the forest ecosystem. Forests are also increasingly in demand as a place for spiritual renewal.

Ontario produces more than $10 billion worth of forest products annually, and accounts for about 20% of Canada's exports of wood and wood products. The forest products industry is the seventh largest industry in the province in terms of sales, and the sixth largest manufacturing employer; in 1989 it spent $2.4 billion in wages and salaries. Other industries benefit, directly or indirectly, from the presence and health of the forest. Tourism relies on the forest experience for a good portion of its sales; wilderness camping, tourism, fishing and hunting are on the increase in Ontario. The business activity associated with the recreational use of the forest is considerable.

Because the government of Ontario owns and manages approximately 84% of provincial forest land, the Round Table, the government, and the citizens of Ontario have a significant stake in the management of this resource. The Task Force has focused on a series of forestry issues, ranging from local to global in concern. The Task Force has attempted to provide recommendations to assist the Round Table, and subsequently the Government, in guiding the management of the forest in a way that will ensure the future of this resource for subsequent generations.

IV. CHANGES IN PLACE AND UNDER WAY

There is new recognition that forests must be managed in an ecosystem-based way. A number of national and provincial initiatives presently under way are attempting to come to grips with the fact that forests must be managed for more parameters than timber production. These initiatives include:

National Round Table on Environment and Economy, Forest Round Table;

Ontario Round Table on Environment and Economy, Forestry Sector Task Force;

Five-year Review of the National Forest Strategy;

Class Environmental Assessment for Timber Management on Crown Lands in Ontario;

Ontario Sustainable Forestry Program (audit, policy framework, silviculture, old growth, community forests and private land forestry);

Federal Green Plan (model forests, forest research, tree planting).

These initiatives appear to be leading to a new management paradigm which includes a shift from thinking primarily about timber to a concept of multiple resource value. Along with this shift is a new emphasis on broader input into forest management, involving consultation with, and accountability to, municipalities, labour, aboriginal people and other interest groups.

There is an important new sense of activity around the role of aboriginal groups in the area of land claims and co-management of resources. Both Federal and Provincial Governments are moving to initiate mechanisms to achieve results in these areas. The aboriginal community is likely to have an increasing role in the management of the land base and the resources which are associated with that land base.

The Ontario Government is also making progress on related programs such as Endangered Spaces, the Wildlife Strategy and Wetlands Policy. These activities will assist in the preservation of important ecosystems and alter the way that wildlife is managed in this Province.

Despite the fact that numerous activities are presently under way, the forest sector continues to require attention and action.

V. DIRECTIONS FOR CHANGE

In the section "Forest Communities" of the Round Table's *Challenge Paper*, the following directions for change, consistent with the guiding principles, were identified:

- ensuring that growth in managed forests exceeds the amount harvested and lost due to natural disturbances;

- ensuring that the full value of the forest resource and the cost of forest management is reflected in the price of wood and wood products as well as the price of non-consumptive services provides by forest communities;

- increasing public and private funding for research on forest growth, ecology, soils, reforestation, harvesting methods, road construction and site preparation;

- developing new technologies to eliminate toxic compounds in paper inks and to lower the energy requirements for paper de-inking;

- economic diversification of uses and products of Ontario's forests;

- expanding reforestation within agricultural and urban areas;

- maintaining and enhancing the health of forest ecosystems through a diverse gene pool by developing and implementing a plan to conserve and protect endangered spaces and representative habitats;

- encouraging and enhancing the establishment of wood lots and forested areas in southern Ontario;

- reducing the use of synthetic pesticides in forestry for tending and site preparation;

- undertaking more detailed surveys of specific forests to obtain a better understanding of these ecosystems;

- developing an improved policy for the size and location of clearcuts;

- eliminating toxic discharges and continually reducing conventional pollution released to the environment;

- increasing the number of trees being planted;

- recycling materials and products which can no longer be reused.

The Task Force narrowed its focus to consideration of the following: aboriginal issues in forestry; biological diversity, including wildlife; decision-making and institutional issues; an overview of economics in the forest industry and the economics of non-timber forest values; a forest audit; global climate change; harvest methods; inventories and data base; pest management; private forest lands; professional education; protected areas; protecting forest sector employment and sustainability of harvest levels; public information and education; research; solid waste management; tenure; and worker protection and involvement.

ABORIGINAL ISSUES IN FORESTRY

Members of the Forest Sector Task Force drafted a background paper on aboriginal issues in forestry (Appendix II) and submitted it to the Native Circle of the Round Table for feedback. The draft, with minor changes, was approved unanimously by the Native Circle, although each group formulated its own recommendations. This cooperative process reflects the importance of forestry to aboriginal people and the willingness of other forest users, including government, industry and environmentalists, to work with aboriginal people in resolving outstanding issues such as land claims and in increasing the share for aboriginal people in the economic benefits derived from the forest.

Recommendations:

The Province of Ontario should encourage the federal government to settle aboriginal land claims promptly.

In making decisions about the use of Crown lands subject to aboriginal claims, the Province of Ontario should consult aboriginal peoples and avoid actions that may prejudice aboriginal rights on these lands.

The forest industry should become a major factor in the successful resolution of aboriginal issues.

Industry, with the support of unions, should provide on-the-job training and encourage aboriginal participation with such culturally supportive programs as seasonal shifts and employment opportunities.

Joint industry/aboriginal economic ventures should be encouraged.

BIOLOGICAL DIVERSITY, INCLUDING WILDLIFE

Biodiversity refers to the variety of species (plant and animal) within the biosphere. Its components include the genetic variation within individual species, the different species within

a region, and the variety of habitats and ecosystems which support these species.

The same trees which provide suitable wood for pulp and saw mills also provide critical habitat for wildlife. Because Ontario is rich in suitable habitats, its forests support a variety and abundance of native plant and animal species. Population declines and extinctions in both plant and animal species, however, are occurring at unprecedented rates because of disappearing or deteriorating habitats. Much of this change is due to human activities.

Modern forestry often involves manipulation of the structure of the forest over space and time. These activities are designed to change the forest vegetation to stands more favourable for fibre production. A contemporary concern is that these activities reduce biodiversity in order to grow commercial timber.

There is a need to maintain or enhance species representation and gene pools in our forested lands. Wild species have important economic, recreational, aesthetic, cultural, educational and scientific value.

A series of nation-wide surveys indicates that the public feels wildlife protection and wilderness preservation are important uses of forest land in Canada. There is public concern that current harvest levels and patterns will irrevocably alter wildlife habitat in a manner that will result in the loss of habitat, reduction of population numbers and potential loss of species. The public is concerned about clearcut size, pesticide spraying, water and air pollution, depletion of soil capital and stand conversion.

The relationship between forestry and wildlife is a major subject in the ongoing public hearings of the Class Environmental Assessment for Timber Management on Crown Lands in Ontario.

Recommendation:

Because forest benefits include the variety, distribution and abundance of wildlife and biodiversity, the establishment of explicit quantitative objectives for biodiversity and wildlife habitat should be a high priority in forest management planning.

DECISION-MAKING AND INSTITUTIONAL ISSUES

Traditionally, Ontario has defined forestry as timber production. The effect, whether inadvertent or intentional, has been to create a dangerously narrow view of forest resources and their management.

Non-timber values include such things as wildlife survival and recreation opportunities. There is a great need to address the availability of non-timber values in our forests. This requires changing the primary goal of forest management from production of timber to preservation of a specified array of values. To achieve more than one goal, a forest must be managed as a whole. At present, non-timber values enter the planning process late and as constraints; they are not included upfront as part of the goal. To achieve sustainability of all forest values, this problem must be addressed.

Ontario's forests should be managed in a way that displays comprehensive goals and allows public input to the determination of these goals.

Recommendations:

In forest management planning a comprehensive set of goals for all forest values should be established that is consistent with natural forest dynamics.

High priority should be given to the use of integration tools such as computerized information systems (eg. Geographic Information Systems and remote sensing) and forecasting models which facilitate the achievement of comprehensive goals in forest management planning.

Periodic statements of the state of the forests in the context of these goals should be made available to the public in a non-technical form.

ECONOMICS IN THE FOREST INDUSTRY SECTOR--AN OVERVIEW

The ability of Canadian industry to compete in the world marketplace is of increasing importance to the overall welfare of Canadians. The forest industry's contribution to Canada's balance of trade exceeds the combined inputs of Canada's other four great resource industries--energy, agriculture, mining and fishing. In 1989, the favourable balance of trade in forest products was $2 billion from Ontario alone. Ontario forest companies paid $265 million in corporate taxes that same year--contributing a significant amount to our social infrastructure, health care delivery systems, old age security programs and education facilities.

Canadian budgetary deficits add to inflationary pressures, driving up short term interest rates and causing over-valuation of the Canadian dollar relative to the U.S. dollar. The impact on the forest products sector has been significant. The increased cost of capital and the appreciation of the dollar have harmed the industry's ability to compete. Those who invested to modernize or expand their facilities, or to develop new products, are also penalized by significant adverse interest and exchange rate movements.

Ontario's position as an exporter of forest products is declining relative to the rest of the country. In 1986 Ontario exports of forest products were 20% of the Canadian total, while in 1989 this share had declined to 17%.

The most recent statistics from the Forest Sector Advisory Council show that between 1987 and 1989, U.S. producers increased their comparative cost advantage over Canadian suppliers by as much as 12.5% in newsprint and 15.9% in market pulp. During the same period, U.S. producers increased their share of total North American shipments: in newsprint from 35% to 39%; and in market pulp from 46% to 53%.

The cost of fibre represents a full 40% of total forest products manufacturing costs. As a result, the comparative costs of fibre from other parts of the world have an impact on the success of the Ontario industry.

WORLD FIBRE COSTS 1987
($U.S./b.d.m.t)

	SOFTWOOD	HARDWOOD
Chile	34	--
Brazil	38	30
Iberia	--	47
U.S. South	48	46
Canadian Prairies	49	67
B.C. Interior	57	--
ONTARIO	**72**	**69**
Quebec	76	72
U.S. North	--	60

Note: Costs in the Nordic countries are higher than in Ontario.

The Ontario government adheres to the "residual value" concept of evaluating its timber resources as the basis of all Crown charges on industrial timber. This system of valuation permits a fair comparison of the value of a standing tree in different regions of the continent. This was the policy adopted during the Countervailing Duty cases on softwood lumber brought by the U.S. government in 1984 and 1986 which describes industrial timber as having value to the extent the marketplace reflects it, i.e. the value of forest products in the market, less the costs incurred in getting it there, is the real value of industrial timber.

Adding Value

Ontario must extract maximum economic benefits from trees cut in the province. By any measure of "value added," against the cubic metres of wood consumed, Ontario leads the rest of Canada. The value of shipments per cubic metre of roundwood production in Ontario in 1988 was $409.47; versus $193.13 in B.C.; $337.14 in Quebec; and $292.31 in New Brunswick. However, Ontario still exports a high percentage of commodity products (i.e. 1.2 million tonnes of pulp) which, if converted into higher value items, would create more quality jobs and provide opportunities for suppliers and for technology development.

There is further room to integrate pulp mills with the production of printing and writing papers. Newsprint mills could be converted to mills which produce higher value-added roundwood, and speciality and coated papers. Full studies need to be done, particularly regarding the economic impacts of recycling. Rather than shipping pulp elsewhere, Ontario should produce these higher value goods.

To maintain or enhance its position as a value-added leader, Ontario requires:

Clear Regulations and Less Process: In the 1980's and into the 90's, the forest products sector has been involved in time-consuming processes--green papers, commissions, studies, reports, environmental assessments (timber and hydro), Round Tables, advisory groups--that have produced virtually no clear policy directions or statements. All these initiatives represent a huge drain on human and financial resources that could otherwise have been directed towards innovative and creative restructuring projects. Firm policies must replace process immediately.

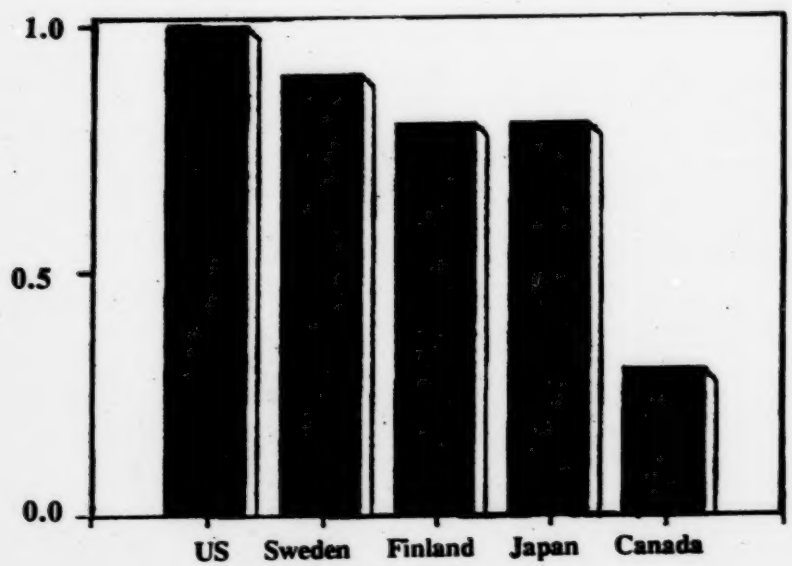
The Elimination of Uncertainty: Stability has a favourable impact on any industrial activity. Labour, distribution networks, energy and fibre supply have historically served the forest sector well.

Ongoing stability of tenure, however, is critical to the forest industry's ability to plan and to attract capital. With a known fibre base, large and small industries, as well as Northern Ontario communities, can plan and structure fully integrated industries that create the highest value-added products. Forest Management Agreements added this security in the late 1970's and capital investment flowed as a result. A equally strong commitment to secure tenure is required today.

Although Ontario's forest industry has been able to take advantage of lower-than-average energy costs, there is every indication it will lose that advantage as clear policies about future energy supplies are not being formulated. Large new hydro projects in South America will bring energy costs down to Canadian levels, creating further cost advantages for Brazil and Chile.

Research and Product Development: The production of commodities and low value-added products requires little investment in research and development. The graph below illustrates the Canadian industry's position relative to some other countries.

Pulp and Paper Research and Development Expenditures by Country



Source: Pulp and Paper Canada 87:10 (1986)

Demand for paper is expected to grow by 7 million tonnes per year in the 1990's. The fastest growth will be in printing and writing paper grades suitable for use with new colour printing technologies and fast printing presses. The continued improvement of coating technology will determine which jurisdiction benefits from the value-added growth.

Initiatives to reduce the amount of packaging used offer a great opportunity to the forest sector. Paper, as a recyclable material, is likely to replace packaging materials which are harder to reuse. The process may again lead to higher value-added products.

Product development is equally important in the solid wood sector, where new products can be developed from previously classified "non-commercial" species of wood. Fibre characteristics will determine what products can be created; development work on those characteristics is vital.

Quality: North America has seen the erosion of traditional markets for some products because of a lack of concern for quality. This is not the case in Ontario's forest products sector. Labour and management in the forest sector have the skills to deliver quality products to the world markets they serve. As value-added products take on a higher profile and replace traditional commodities, these skills and the commitment to quality must be reinforced.

Recommendations:

Greater development of value-added forest products must be a priority.

The Province of Ontario should encourage, reward and recognize companies that develop new forest products for the international marketplace.

The Province of Ontario should emphasize and reward quality activities much more than at the present time.

Government should reduce all upward pressure on interest rates so that there will be a decreased cost of capital, thus helping the forest industry to make the necessary investments to remain competitive in the world marketplace.

The concept of "residual value" of industrial timber should be maintained.

A clear policy direction must replace the process which presently is delaying industry investment decisions.

The Province of Ontario should immediately clarify the security of forest tenure for all of those who have lived up to the obligations as outlined in the basic tenure agreement.

Future energy supply and costs should be determined immediately if the industry is to grow and prosper.

Joint industry/government research in Ontario is imperative in all forestry and forest industry sectors if we are to remain competitive.

The development and production of equipment and supplies for the forest industry should be supported and encouraged within the Province of Ontario.

ECONOMICS OF NON-TIMBER FOREST VALUES

Activities related to wildlife in Ontario generate more than 62,000 jobs. Expenditures on these activities by residents alone contribute more than $2.2 billion annually to the gross domestic product of Ontario (Environment Canada, 1987).

Anglers in Ontario spend more than $2 billion on their recreation every year (OMNR, 1985).

For every dollar spent on wildlife conservation programs, more than $4.50 is returned to federal and provincial treasuries in tax revenues alone.

From 1986-87 to 1991-92, the provincial budget has grown by almost 60%. During the same period, the Ministry of Natural Resource's budget has increased by 18%, less than the cost of inflation.

Recommendation:

The Province of Ontario should stop undervaluing non-timber forest values such as wildlife and recreation.

FOREST AUDIT

Ontarians in all walks of life are concerned about sustainable forest management. Those same Ontarians own most of the provincial forest. The Task Force recommends the implementation of accounting for sustainable development. This auditing process would be a means to determine how well policies or standards have been followed, not a policy or standard setting process.

What to Audit?

This accounting would take place around measurable and pre-described conventions on public forest lands. It would: a) measure the resources consumed in producing forest products, and b) determine the resources preserved and the wealth created for future use. The accounting would

take the form of an audit similar to the Five-Year Reviews of Ontario Forest Management Agreements but expanded to include:

All forest inventories. ("Inventory" is defined as "what is on the land base" and would include any resource which has been recorded such as timber, wildlife, cultural and historic sites, fish habitat, etc.)

Economic, cultural and social well-being of all immediate communities (employment opportunities and growth, cultural maintenance, health care and social services, recreational opportunities).

Treatment success rates.

Relative success of the sustainable development program in one Ontario region versus other provincial regions.

Who Will Audit?

All Ontarians, including governments, forest advocacy groups, forest products companies (and their employees, shareholders and customers), and First Nations should know how well provincial forests are being managed.

Even though the audit would be based on a pre-described model, the auditors should have multidisciplinary skills and be chosen for their:

Objectivity;

Understanding of the total forest ecosystem;

Comprehension of social and cultural needs of both the local and wider communities;

Ability to account for all capital.

A well structured audit would make a gigantic contribution to the knowledge base needed to determine the best way to use of Ontario's forests.

Recommendation:

In those forest resources where an inventory exists, a periodic audit should be carried out to determine the state of the forest after use and the success of the users in meeting stipulated conditions and regulations.

GLOBAL CLIMATE CHANGE

The atmosphere of the Earth maintains the surface temperature some 15° to 33°C warmer than it would be if the atmosphere were absent. This natural greenhouse effect makes life on earth possible. Emissions resulting from human activities, however, have increased the atmospheric concentration of gases such as carbon dioxide, methane, nitrous oxide and chlorofluorocarbons which help maintain the natural "greenhouse effect".

Mathematical models provide estimates of climatic change that may result from higher levels of these gases. While many uncertainties plague the models, they predict that with current trends and rates of emissions of greenhouse gases, global mean temperatures will increase during the next century. Such warming, if it occurs, could change precipitation levels and water supply patterns, and cause major shifts in vegetation patterns. It could have important consequences for Ontario's environment and people. In forests, insect and disease damage and physical stresses, as well as fire damage, may increase.

The forest products industry -- its resources, manufacturing processes and products in use -- can contribute to reducing the risks. The pulp and paper industry produces significant amounts of carbon dioxide, from both biomass and fossil fuels. The industry has a long-standing commitment to reducing fossil fuel use per tonne of production, and has successfully reduced emissions from 0.8 t CO_2/t product in 1975 to 0.4 t CO_2/t product in 1988. It can achieve further reductions if all energy sources are available for use, and their real economic, environmental and social costs are considered. Furthermore, intensive research, development and technology transfer efforts are needed to improve energy efficiency.

Opportunities to reduce and conserve include: the reduction of paper in landfills and incinerators through recycling; the use of solid wood products in permanent structures providing long-term storage of wood carbon; and the creation of healthy urban forests to protect homes and other buildings from the extremes of heat and cold.

Recommendations:

In collaboration with governments, industry should promote research, technology transfer and development to improve energy efficiency.

The Ontario forest sector should increase forest growth through intensive silviculture, afforest treeless areas, improve forest protection, and reforest industrial forest areas immediately after harvest.

The Ontario government and industry must promote the recycling of all forest products.

In construction and building codes, there must be provision for the substitution of energy-intensive materials with wood products.

Municipal governments, with the help of the Province, should pay special attention to the development of urban forestry programs as a contribution to efforts to curb the effects of global warming.

HARVESTING METHODS

Clear cutting is a forest management method where an entire stand is removed. It permits concentrated regeneration on the site, either through planting, sowing or natural regeneration. Clearcuts may range in size from 0.1 to over 1,000 hectares.

The seed tree and shelterwood systems also allow regeneration of a site over a narrow time period by thinning stands many times over a rotation, leaving high quality trees. The seed tree method requires 50-100 stems/ha be left while the shelterwood method requires many more. Once a site is regenerated the seed or sheltering trees are removed.

Selection cutting involves regular entry into a stand to remove over-mature and poor quality trees. It can be used in conjunction with clearcutting as a method of thinning, or in uneven-aged generation where regeneration occurs continuously. This method requires great skill in tree selection to prevent high grading--the deterioration of stand and genetic quality. In Sweden, high grading led to a ban on individual tree selective logging.

Controversy surrounds the use of clearcutting and questions have been raised about the adequacy of regeneration, the size of clearcuts, and the exclusion of the consideration of other values in choosing this method of harvest. The following is a list of many of the factors to consider when specifying clearcut size, the length of time before an adjacent area can be felled, whether two, three or more entries into an area are required, or whether harvesting should be excluded entirely:

- silvics of the species being harvested
- current stand and forest age class distribution (eg. all over-mature)
- stand/forest hygiene (i.e. presence of insect or disease, fire damage) and need to salvage
- harvesting economics
- road network requirements
- wood quantity and quality requirements by industry
- topography, slope, aspect
- soil type, quality, nutrients, sensitivity
- need for primitive access to area due to soil sensitivity, wildlife, recreation, etc. and thus need for winter logging or other special access (eg. barge)
- wildlife needs for habitat and effect of forest fragmentation
- degree and type of recreational use

- presence of indigenous species (plant and animal) and their habitat requirements
- possible presence of rare, threatened and endangered species (plant and animal) and their habitat requirements
- maintaining or improving water quality
- maintaining or improving species (plant and animal) diversity
- presence of historically or culturally sensitive areas, or otherwise special forest conditions (eg. old growth)

Harvest methods should be devised to achieve the objective of integrated forest management, with consideration of research findings regarding the effects of clearcutting on forest ecosystems.

Recommendations:

Consistent with the above, and with protection and enhancement of all forest values:

The Province of Ontario, together with all other forest users, should establish the range of acceptable clearcut sizes to be used in the harvesting of Ontario forests; and

Forest users should utilize, where appropriate, alternative methods of harvesting, including the seed tree, shelterwood and selection systems.

INVENTORIES AND DATA BASES

There is a dearth of information available to decision-makers about timber management planning. The major available data base, the Forest Resource Inventory (FRI), provides useful direction for province-wide planning, but lacks the detail required to support site-specific planning or planning for "non-timber" values. To ensure that comprehensive forest management planning can occur, more detailed information and data bases are required. Such data bases, however, are difficult and expensive to create and maintain. The development of more complete inventories of flora and fauna, as well as cultural, spiritual and historic sites, requires the partnership of government, private industry, aboriginal groups and other forest users (anglers and hunters, canoe enthusiasts, naturalists, etc.) who can contribute through funds or in kind. Examples of successful joint ventures are the Breeding Bird Atlas and the Mammal Atlas.

Improved data is also required on the success of forest regeneration, both natural and artificial. The impacts of such factors as site types, harvest method, previous forest stand composition, soil characteristics, moisture regime and post-harvest treatment need to be assessed in light of the success of regeneration treatments. There is also a need to determine what the new forest should look like. "Success" to some observers might be a return to pioneer species such as birch and aspen, with the various stages of succession ultimately resulting in a mature mixed forest. To others, "success" might be the rapid establishment of a high fibre-producing plantation resulting in the earlier production of harvest-ready material.

The audit currently under way through an independent panel for the Ministry of Natural Resources will provide some answers to "how well the garden is growing" in previously harvested areas of the boreal forest. This audit should also provide guidance for future regeneration efforts.

In 1989, Ontario started to digitize the FRI maps. Ultimately all the FRI maps of the province will be in a digital format, which makes it possible to use a technology called Geographic Information Systems (GIS). GIS technology allows resource managers to view a forest from a number of different angles. The map can combine information on any two subjects--wildlife habitat and tourism use, for example--or it can combine information about terrain with existing information on soil, forest stand, wildlife habitat, floral associations, tourism, and even heritage values. Although resource managers are just beginning to focus on information needed for ecosystem management, by manipulating existing data, they can get an idea of ecosystem complexity. GIS is also a technology with export potential.

With better information and data, decision-makers will be in a better position to develop silvicultural prescriptions for the forests of Ontario. Such prescriptions would enhance a wide variety of forest uses as well as timber production. The preservation of old growth forests, wildlife habitat, canoe routes, aboriginal heritage, and rare or endangered species, could then be included in comprehensive timber management plans.

Recommendations:

To compile more complete data bases on flora and fauna, as well as cultural, spiritual and historic sites, some form of partnership of government, private industry, aboriginal groups and other forest users should be established to provide assistance either through funds or in kind.

A more complete data base on the success of forest regeneration, both natural and artificial, should be compiled taking into account factors such as site type, harvest method, previous forest stand composition, soil characteristics, moisture regime and post-harvest treatment.

The present independent audit being carried out on the success of regeneration efforts in Ontario should distinguish between regeneration on FMA lands and on Crown Management Units.

The Province of Ontario should improve its data base through increased use of Geographic Information Systems.

PEST MANAGEMENT

The use of pesticides--both herbicides and insecticides--in forest management is controversial. Management of non-crop vegetation that competes with young trees for essential light, water and nutrients is used for successful reforestation. Insect management techniques are used when a particular forest value is threatened by a damaging insect population.

There was a wide spectrum of views among the various members of the Task Force about the use of chemical pesticides. The opinions of members ranged from:

an immediate ban on the use of chemical pesticides in forest management; to

a stepwise reduction of the use of chemical pesticides, with an ultimate goal of virtual elimination; to

continued use of chemicals as a forest management tool.

The Task Force agreed, however, that it should strongly encourage research into the development of safe, effective and efficient alternatives to the use of chemical herbicides and insecticides.

Recommendations:

A group should be established to develop a series of achievable targets and timetables to help ensure the delivery of possible alternatives to chemical pesticides.

New approaches to vegetation and insect management developed by this group should be applied to achieve a stepwise reduction of the use of chemicals in the forest.

PRIVATE LANDS FORESTS

Although they cover only 15% of the productive forest land base, private forests make a substantial contribution to the economic, social and environmental health of Ontario. They supply 19% of the industrial wood used in the province. Moreover, the forests in southern Ontario, the majority of which are in private ownership, support 80% of all outdoor recreation in Ontario. They also provide key environmental benefits such as clean air and water, rich diverse habitats, productive soils and attractive landscapes.

These forest benefits are at risk. Intense pressure from urban and recreational development has resulted in the rapid depletion and fragmentation of woodlands, particularly in southwestern and south central Ontario. For example, between 1961 and 1986 in Essex County, the area of farm woodlots decreased by 73 percent.

Environmental, social and economic benefits of woodlands extend beyond property boundaries and are available to the community, not only to the landowner. Therefore, the government, along with landowners and the community, must share the responsibility for ensuring that sustainable forestry on private land is facilitated. The Ontario Ministry of Natural Resources has recently announced a major restructuring of its private land forest program.

Recommendations:

The Province of Ontario should implement and support the new Private Woodlands Strategy, in particular:

The initiation of a major education and awareness initiative to establish skilled landowners and persuade them to undertake management activities on their own;

The initiative to co-ordinate and consolidate program resources and delivery by all agencies to provide landowners "one window access" to programs and services; and

The initiation of programs to involve the community as a partner in providing for the management of private forest lands.

PROFESSIONAL EDUCATION

Professional foresters must not only know the basics of forest biology and silviculture, but increasingly they must also be effective problem solvers and competent communicators. They must have a broad appreciation of society's values and needs and an understanding of how forestry connects with other global resource issues. Traditional forms of forest management and tenure are changing, and society is becoming more aware of, and involved in decisions which affect a broad array of forest values. Forestry curricula and instructional methods must provide students with the necessary skills and knowledge to meet these new challenges. Continuing education is an important avenue for skills development and updating of basic knowledge.

Recommendations:

Aboriginal students should be encouraged to undertake post-secondary school forestry education by establishing one-year science access transition programs, including cultural support services, at the university level. Such programs would be designed to help prepare aboriginal students for admission into forestry or related science fields.

The use of continuing education programs by professional and technical foresters should be promoted and a mechanism for collating and disseminating, on a regular basis, information concerning such programs should be established.

The education and training of professional and technical foresters should take into account all of the components of forest land including ecological, social and cultural values and traditional aboriginal ecological knowledge and management systems.

Forestry curricula should include problem solving, conflict resolution, and interpersonal, consultation, and communication skills--as well as scientific skills--with the goal of producing foresters who are both scientific inquirers and management practitioners.

Codes of ethics and standards of practice should be integrated into professional and technical forestry curricula including continuing education programs.

PROTECTED AREAS

As an answer to increasing demands on a limited land base, the Brundtland Commission called for 12% of land area to be set aside as "protected spaces"--areas where natural processes could continue. The Commission stated that the protection of species and ecosystems is an "indispensable prerequisite" for sustainable development, and that a tripling of the approximately 4% of the global land mass presently contained within protected areas is necessary to maintain representative samples of the world's ecosystems.

One of the foremost reasons for establishing "wild areas" or protected spaces is to maintain intact a representative range of the province's biological diversity. The benefits of protecting the integrity of a wide range of ecosystems include the maintenance of gene pools for both animal and plant life, and the preservation of a natural laboratory for scientific study.

Wilderness also provides undisturbed wildlife habitat, fisheries and watershed protection, and recreation opportunities. For many, the wild forest, and the knowledge of its continuance, promote emotional and spiritual wellbeing and a sense of identity which is tied strongly to a sense of place and land.

The Canadian government has recently adopted the 12% figure as a national goal for wildlands or endangered spaces protection, as have the provinces of Manitoba and Saskatchewan and the Yukon Territory. In Ontario, 5.5% of the lands and water are designated as "protected". These include wilderness, natural area, recreational and waterway parks, and "Areas of Natural and Scientific Interest" (ANSIs). According to government data, existing protected areas represent only 32 of Ontario's 65 natural areas (known as "site districts").

While forestry practices, if sustainable, should be of a standard that respects ecological values on all forest lands, including those allocated for industrial use, the Task Force members agreed that there was also a need for forest areas free from industrial use.

The establishment of guidelines for the protection of wild spaces and their representative ecosystems can be difficult because of conflicting priorities for the use and future of forest areas. As the amount of forest land not yet put to industrial use decreases, however, the need for effective action to protect the remaining wild spaces increases.

Recommendation:

The selection process for representative wild areas should be completed and protection mechanisms for these areas should be established, particularly given that current and future development could result in the loss of important candidate areas.

PROTECTING FOREST SECTOR EMPLOYMENT AND SUSTAINABILITY OF HARVEST LEVELS

The Task Force recognizes the importance of the forestry sector to the economy of Ontario and the need to protect forest sector employment. There is public concern, however, that current levels of harvest in some regions of Ontario are not sustainable. Historically, the depletion of wood supplies from a particular area have resulted in mill closures. In order to prevent such closures, planning and management at the provincial level is required.

While production of wood fibre of the quantity, quality and type sufficient to meet industrial needs is necessary for job protection, production that exceeds the sustainable capacity of the forest may lead to a decline in wood supply and falling employment levels. It is therefore necessary for the MNR and industry to make a commitment to harvest at a sustainable level.

To determine whether the current level is sustainable will require a comprehensive examination of current and projected wood supply, and the employment effects of movement, should it be required, to a lower but sustainable level of harvest. This examination should include both long-term and short-term employment and investment effects of continuing current trends in harvest levels, and of moving to a sustainable level.

It may be desirable to concentrate high yield timber production in some areas of production forest to satisfy industry demands. In other areas, a mix of silvicultural prescriptions and uncut natural forest will be required to protect biodiversity and animal and plant ecosystems.

Recommendations:

While respecting present commitments, the provincial government should develop a rating system that weighs the granting of cutting licenses in favour of local mills and value added manufacturers, and which discourages the transfer of licenses and allocations from a local mill to a distant one.

The Province of Ontario and industry must make a commitment to harvest at a long-term sustainable level. A comprehensive examination of current and projected wood supplies is needed to determine whether current harvest levels are sustainable. The employment effects of alternative sustainable levels of harvest must be determined. This examination should include both long and short term employment and investment effects of continuing current trends in harvest levels and alternative sustainable levels.

PUBLIC INFORMATION AND EDUCATION

Although there is increasing public demand for information about the forests of Ontario, much of the information available is biased or inaccurate. The Task Force recommends that government, industry, environmental groups, aboriginal groups, interest groups and academia join forces to produce a series of fact-based publications regarding the state of Ontario's forests. These publications would teach the general public about the environment, the many ways in which forest is used, the forest as a key segment in the economy, and the long-term need for forest as a source of biodiversity. Such publications would be produced in a timely fashion, be readily comprehensible, and updated at regular intervals.

The Task Force also recommends that the Ministries of Natural Resources, Environment and Education upgrade their efforts to build forest-related issues into the curriculum of Ontario's schools. It is imperative that children, through the education system, become aware of forest values (from biodiversity to fibre production) in order to better appreciate and understand the importance of the forest and the systems it supports. The Ministry of Natural Resources should also continue its joint venture with the Ontario Forestry Association ("Trees Ontario") to increase awareness with regard to forestry issues and to increase, where possible, local involvement in the reforestation of suitable lands.

The Ontario Round Table on the Environment and Economy should petition publicly funded television at both the national (CBC) and provincial (TV Ontario) levels to provide balanced programming on forest-related issues to provide adequate opportunity for the accurate representation of various viewpoints.

In light of international publicity concerning Canada's forestry practices, there is a need for Ontario to convey what it is doing in forest management.

Recommendations:

A comprehensive, co-operative information project on the state of Ontario's forests should be carried out with input from government, industry, aboriginal groups, interest groups and academia. Publications should cover the environment, multiple use of the forest, the economic value of the forest, and the long term need for the forest as a source of biodiversity. They should be timely, readily comprehensible and updated at regular intervals.

The Ministries of Natural Resources, Environment and Education should upgrade their efforts in building forest-related issues into the curriculum of Ontario's schools.

The Ministry of Natural Resources should continue its joint venture with the Ontario Forestry Association ("Trees Ontario").

The Ontario Round Table on the Environment and the Economy should petition publicly funded television at both the national and provincial levels to provide balanced programming on forestry-related issues.

The Province of Ontario should convey what it is doing in forest management to the international community.

PULP AND PAPER INDUSTRIAL EFFLUENT

Over the past two years, there has been considerable focus and controversy on the quality and effects of effluents from the pulp and paper industry. The presence of dioxins and chlorinated organics in effluents, along with effluent toxicity and the bleaching process, have been the major issues in this ongoing debate. Many provincial governments, along with the federal government, have passed or are in the process of passing new legislation specifically addressing the environmental issues of the industry. The present status of these issues is as follows.

Toxicity

Biological treatment systems are available that can completely remove acute toxicity (as measured by a standardized fish survival test) from all pulp and paper mill effluents. A growing number of mills are adopting this technology.

Dioxins

Since the time dioxins were found in mill effluents, industry has responded quickly by developing process changes and treatment techniques which significantly reduce concentrations. Total estimated discharge quantities of 150 grams per year have now been reduced to 75 grams, with 10 grams per year achievable by the end of 1992. Although some of the less toxic isomers are still present, even in the non-bleaching process, technology is or will be available to reduce the most toxic dioxins to non-detectable levels.

Bleaching

Considerable discussion is ongoing on the necessity of bleaching. It is quite apparent that the market does not require the degree of brightness that is demanded today. On the other hand, it must be understood that bleaching is used not only for brightness. Other properties of the fibre, such as strength, opacity, cleanliness and odour are also enhanced. In fact, it is necessary to achieve these properties through the bleaching process in order to meet the requirements of the converting industry and the end use product. Chlorinated organics are the only parameter of concern related to bleaching, and technologies have been and are being developed to address the issue.

Chlorinated Organics

The kraft process has historically used chlorine as a bleaching medium for pulp. Chlorine, however, reacts with lignin in the pulp to form chlorinated organics which have been found at elevated levels in the mill effluent. Chlorinated organics are discharged into the environment, where they are perceived to affect the ecosystem. The industry has invested a significant amount of capital on technology which enables mills to replace elemental chlorine in the bleaching process with chlorine dioxide. Other new technologies, such as extended delignification, oxygen delignification and secondary treatment also reduce chlorinated organics in effluent by a significant amount. Using existing and future technologies, the Ontario pulp and paper industry intends to reduce emission levels to 1.5 kg/AOX/tonne over the next five years. (AOX refers to the analytical technique used to measure organochlorine substances.)

Environmental groups recommend that a ban be placed on the use of chlorine in the bleaching process, and some oppose the use of chlorine dioxide. At present, there is no alternative process to chlorine bleaching which can produce pulp of the necessary strength, cleanliness and brightness. Alternative processes based on ozone, enzymes, peroxide, lignox, etc. are under investigation, but are not yet suitable for full-scale production.

Recommendations:

All pulp and paper mills should have primary and secondary treatment systems.

All pulp and paper mill effluents should be non-toxic.

Dioxins should be non-detectable in pulp and paper mill effluents.

The pulp and paper industry should support efforts to achieve virtual elimination of persistent, bioaccumulative and toxic materials in mill effluents through pollution prevention and treatment.

The pulp and paper industry should actively support research into the elimination or treatment of chlorinated organics. The "sunsetting" of chemicals should be done through scientific processes and in light of society's needs.

RESEARCH

The Task Force identified a number of important forest and forestry issues in which decision-making is hampered by a lack of Ontario-based information. Priority in research, in the view of Task Force members, should be given to the subject areas listed below. All concerned parties should participate in research design. Research should take into account the effects of global warming and the goal of protecting forest biodiversity. Research areas identified are:

The environmental effects of full-tree logging in Ontario forests.

The environmental and ecological effects--including the aquatic and terrestrial effects and measures of the results of regeneration--of various types and combinations of silvicultural practices including:

- large area clearcutting followed by each of artificial and natural regeneration;
- small area clearcutting followed by each of artificial and natural regeneration; and
- alternatives to clearcutting for harvesting.

The environmental effects of pesticide use (both herbicides and chemical and biological insecticides) in Ontario forests.

Economic issues, particularly procedures for full-cost accounting in forestry, and possibilities for future increases in the value added to Ontario forest products.

Techniques and tools to facilitate the integration of non-timber values with timber management activities.

Watershed-level and cumulative environmental impacts associated with timber management activities.

Recommendation:

The Province and industry should adopt the above as research priorities and this research should take into account the effects of global warming and the protection of biodiversity.

SOLID WASTE MANAGEMENT

Because paper and cardboard products make up the bulk of material going to municipal landfills, diversion of these materials would help alleviate Ontario's impending "garbage crisis". Ontario has the largest concentration in Canada of mills whose major, if not sole source of fibre is discarded paper and paperboard. In 1989 the total consumption of waste paper by recycling mills located in the province reached 973,000 tonnes.

Collection

While great progress has been made in expanding the collection of waste paper in Ontario, 30% of the waste paper required by Ontario mills is still imported from outside Canada. This suggests that, in spite of a steady increase in waste paper consumption in Ontario, currently operating mills have the capacity to absorb more. The announced construction of several new recycling plants will demand more waste paper from Ontario sources or from imports.

Sludge Disposal

A mill processing waste paper creates its own significant waste problems. Between 15 and 25% of the waste paper being recycled will be lost in the form of sludge. This sludge is made up of inks, clays and fillers; a 400-tonne-per-day plant can produce anywhere between 60 and 100 tonnes of solid waste requiring disposal.

Definitions

Although the pulp and paper industry has been recycling for centuries, the activity has now become very visible. As a result, various political jurisdictions around the world are creating symbols (such as "eco labels") to depict the recycled nature of the product. The definition of "recycled", however, differs between jurisdictions, complicating investment decisions and marketing strategies.

Recommendations:

The collection of waste paper should be encouraged until all practicable volumes are removed from the waste stream. The Province of Ontario and industry should promote the recycling of all forest products consumed in Ontario.

Continuing consultation between the Province of Ontario, advocacy groups and the industry should take place to ensure that the recycling effort moves forward at a reasonable and sustainable pace.

The Province and industry should implement a broad education program to help enlist public support to ensure that the materials for recycling are properly classified.

Sludge disposal sites and/or alternate methods of disposal should be made available quickly by government authorities so recycling investment decisions can be made.

All governments should avoid measures that will impede, internationally or otherwise, the free flow of recyclable materials or recycled products, across provincial or international borders.

In developing recycling policies and regulations, the Province of Ontario should protect workers in forest-based industries of Ontario from any detrimental impacts.

TENURE

The forests of Ontario belong to the people of Ontario. The government, as the people's agent, regulates forest practices by legislative action through the Crown Timber Act, forest regulations and by decree through the issuing of various guidelines and directives.

Tenure provides the structure to administer compliance with government objectives and the licensing arrangements that define Rights and Responsibilities over a defined area and time.

There are many forms of tenure in Ontario: District Cutting Licenses, Third Party Licenses, Short and Long Term Licenses (1-21 years) and Forest Management Agreements. These many forms allow a flexibility to adapt to specific local requirements and needs.

The newest form of tenure is the Forest Management Agreement (circa 1980) which has the following characteristics:

Integration of harvesting and reforestation.

Operating decisions reflecting the reforestation responsibilities of the FMA holder.

Renewal of the twenty-year agreements (in 5 year increments) as long as the FMA holder meets clearly-defined performance standards.

Five-year reviews in the form of audits.

Plan amendment procedures that are incorporated should a legitimate concern arise. That plan amendment itself is subject to public scrutiny and government approval.

Obligations to provide for multiple use and integrated resource management as part of the overall planning and implementation of forest practices and activities.

The Province of Ontario always maintains ultimate responsibility and authority for public forest lands.

They can respond quickly and are flexible enough to meet changing society needs.

Volume of timber in excess of the FMA holder's needs are made available to other enterprises, thereby ensuring that areas scheduled for cutting are harvested and renewed in a fashion that will contribute to the overall economy of the Province.

Failure to harvest the prescribed areas leads to the payment of liquidated damages to the Crown by the FMA holder.

The benefits of FMAs are evident throughout Ontario:

Secure tenure encouraged billions of dollars of capital investment throughout the 1980's.

A spirit of co-operation between government, industry and academia led to a higher level of concern for renewal which translated into significant increases in treated areas.

Previously "Not Sufficiently Regenerated" areas of forest land were subjected to silvicultural renewal.

Northern communities dependent upon a long-term fibre supply have seen industry and government invest in the forest and the capital infrastructures to insure their future.

Forests and forest management activities differ from most other areas of endeavour in society due to their need for a long-term planning horizon. This is because:

A typical Ontario forest has a rotation of 70-120 years;

The forest industry is capital intensive and huge investments require the certainty of fibre supply for many years;

Northern Ontario towns, cities and municipalities need to know that the fibre supply which sustains the local forest industry (which in turn sustains a major part of the local social infrastructure) is secure and will sustain their community forever.

Comprehensive forest management programs containing provision for sound wildlife management, biodiversity concerns, ecosystem management, and recreational values as well as timber management, require dedicated research in which industry should be

encouraged to participate. Only if the industry has some assurance of tenure over a long period can it be expected to make resources available to carry out adequate research.

Licensing procedures are under study in Ontario and other provinces, as the search goes on for improved resource management tenure systems. The recently announced Ontario Community Forests initiative may, on a trial basis, result in a system that places tenure responsibilities for specific land areas in the hands of a group of citizens. The Community Forest could involve a Crown Management Unit with forest-generated revenues flowing back to that tract of land to fund forest regeneration. Thus the forest land base on which the adjacent communities rely for their economic wellbeing is enhanced and perpetuated. No matter what form the "Community Forest" takes, it must include some type of long-term stewardship agreement for the forest area.

Future arrangements with companies must propose more secure area-based tenures that will encourage private expenditures on the intensive forest management practices necessary to increase timber supplies and enhance other values of the forest land. The tendency will be to shift from a system that limps along on reluctant handouts from public treasuries, to tenures that are based on forest stewardship and effective public involvement.

Recommendations:

All systems of tenure should provide for:

Flexibility to meet changing societal needs;

Mechanisms for public scrutiny and meaningful input at all planning stages;

Performance audits;

The inclusion of clear obligations (financial and operative); and

Healthy forests in perpetuity.

It should be recognized that a secure system of tenure is vital if industry is to stay competitive in world markets and modernize its assets.

New forms of tenure, such as the recently announced Ontario Community Forests initiative, should be encouraged on a selective trial basis.

WORKER PROTECTION AND INVOLVEMENT

More effective worker involvement and leadership in the forest sector is essential if the forest industry is going to deal successfully with the economic and environmental problems and uncertainty it now faces. It is the people who live in communities in forest areas, especially forest sector workers, who bear the major consequences of mill closures and dwindling wood supplies, and who could suffer from the costs of cleaning up environmental problems and meeting new environmental standards. In setting new environmental standards, government must ensure that the enforcement of such standards does not detrimentally affect workers and communities. The true costs of production, including the full cost of using the environment, should be reflected in the cost of the commodity produced.

Recommendations:

The forest industry should establish joint environmental committees in every workplace in concert with supportive policy administered by the Departments of Labour and the Environment.

The Province of Ontario should ensure the protection of workers from detrimental effects, such as job loss, resulting from improved environmental standards.

The job security of any worker who reports an environmentally hazardous situation should not be jeopardized.

The Forest Sector Task Force recommends to the Round Table that in its Preamble, it include a statement to the effect that:

Job losses due to the enforcement of environmental standards must be addressed in all sectors with consideration of the following:

> **The establishment of a fund that would provide grants and loans to businesses willing to invest and provide jobs in Ontario, provide incentives to increase research and development, take part in joint venture and invest directly in local jobs; and**
>
> **Worker participation in decision-making regarding changes in environmental standards.**

APPENDIX I - INVITED SPEAKERS

Harry Bombay, National Aboriginal Forestry Association, on aboriginal involvement in forestry

John Cary, Policy Branch, Ministry of Natural Resources, on private land forestry

Peter Duinker, Forest Management and Policy, School of Forestry, Lakehead University, on clearcutting, global warming and old growth forests

Gary Gallon, Environmental Economics International, on recycling

Paul Muldoon, Pollution Probe, on industrial pollution

Reino Pulkki, School of Forestry, Lakehead University, on clearcutting

Norm Richards, Policy Branch, Ministry of Natural Resources, on provincial park system

Bob Rosehart, Chief Negotiator, Province of Ontario, and President, Lakehead University, on Nishnawbe-Aski self-government negotiations

APPENDIX II - ABORIGINAL ISSUES IN FORESTRY

Aboriginal people were the first inhabitants of Ontario and were dependent on Ontario's forest resources for their survival. They developed a unique culture based on respect for the land and forest resources which have provided them with "food, shelter, fuel, clothing, tools, transportation, medicines and spiritual and emotional security" (Task Force on Native Forestry, 1990). Today many aboriginal groups insist that they have not ceded title to land they traditionally occupied and that they were self-governing, independent peoples. They seek to claim land, the right to be self-governing, the protection of their traditional culture, and the upholding of treaties. There are parallels between sustainable development and aboriginal philosophy which advocates taking care of the land for future generations.

The Canadian Constitution under Section 35(a) recognizes and affirms "existing aboriginal and treaty rights of the aboriginal peoples of Canada." Although these rights are only now being defined by the Supreme Court of Canada, the Constitution provides a basis for forging a new relationship between the federal and provincial governments and aboriginal people. The Province of Ontario has taken the initiative in developing a new relationship with aboriginal people. With the Golden Lake Band, the provincial government has recognized aboriginal rights to hunt and fish within Algonquin Provincial Park. With the Bear Island Band of Temagami, the province has entered a joint stewardship agreement to co-manage forest resources on part of the land under claim by the Teme-augama Anishnabai. With Nishnawbe-Aski Nation, the province has undertaken to negotiate a self-government agreement which will cover lands and resources north of the 50th parallel. This is a good beginning.

The following areas have been identified by the Task Force on Native Forestry established in British Columbia in 1990 and the Forest Sector Task Force and Native Circle of the Ontario Round Table.

Land Claims

An important issue for Ontario's aboriginal people is to settle expeditiously outstanding land claims. The Native Circle of the Ontario Round Table takes the position that settlement of land claims should be addressed prior to or in conjunction with decisions about the use of Crown land, including the establishment of parks.

Forest Tenure

Most reserves in Ontario are too small to support viable forestry operations and off-reserve Crown land in Ontario is managed by the Province and large industrial holders under Forest Management Agreements. This limits opportunities for aboriginal communities to develop self-sufficient forestry enterprises. Examples of aboriginal-owned forest businesses like Kiashke River Native Development Corporation of Gull Bay, who operate their own management unit, and Niigaani Enterprizes, who operate under a third party agreement on an existing FMA, are too few. The forest industry should be encouraged to develop more tenure-sharing

arrangements, such as third party agreements, and the province should be encouraged to diversify its licensing procedures so that more of the forest resource is available to a wider variety of users, including aboriginal communities. Co-management agreements and community forests are examples of some different forms of tenure.

Education and Training

Professional, technical and management skills are needed to encourage aboriginal participation in forestry. Universities and colleges in the province should be encouraged to include in their forestry curriculum content that recognizes the need for professional development and provides cultural support (such as counselling) to aboriginal students enroled in these programs. An example of such a program is the Native Resources Technician Program at Sault College where distance education technology allows students to remain in their communities for a good part of the course. Industry should be also be encouraged to provide cultural support in on-the-job training programs.

Economic Development

Aboriginal communities want to build economic self-sufficiency and there are numerous ways to encourage such economic development. Supporting aboriginal communities in establishing and bidding for silvicultural contracts in their traditional territories, affirmative action hiring policies by both government and industry in conjunction with unions, removing barriers to obtaining financing to allow easier access to capital, and the encouragement of joint ventures are some of the means to be tried.

Integrated Resource Management

Traditional aboriginal resource use has been varied with the forest viewed as a whole. Traditional activities of hunting, fishing and gathering require the maintenance of forest habitat and biodiversity. This traditional knowledge should be incorporated into the forest management planning process. One way of doing this is to carry out an inventory of special aboriginal sites, both cultural and sacred and/or encourage the practice of traditional land use mapping. This information should be readily available to all parties involved in resource planning. It is important that forest management planning take into account traditional knowledge, encourage aboriginal participation in planning, protect all uses of the forest and explore the possibility of co-management of resources in traditional aboriginal lands.

If you would like a copy of any of the following reports:

Agriculture and Food
Energy
Forestry
Manufacturing
Minerals
Native People's Circle
Transportation
Urban Development and Commerce

Please contact:

Ontario Round Table on
Environment and Economy
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